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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,384	07/12/2001	Suresh Ramaswamy	20366-007360	8045
20350	7590	11/30/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP			VO, LILIAN	
TWO EMBARCADERO CENTER			ART UNIT	
EIGHTH FLOOR			PAPER NUMBER	
SAN FRANCISCO, CA 94111-3834			2127	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/905,384	Applicant(s) RAMASWAMY, SURESH	
	Examiner Lilian Vo	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 24 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 10 – 12 and 15 - 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Wanta et al. (US Pat Application Publication 2002/0152145, hereinafter Wanta).

4. Regarding **claim 10**, Wanta discloses an object distribution system for controlling load distribution during access to objects resident on a plurality of computers attached to a communication network, the system comprising:

a client computer attached to the network, wherein a client program is resident on the client computer (page 2, paragraph 22);

a first server attached to the network, wherein a first object is resident on the first server (page 2, paragraph 22, page 4, paragraphs 50 – 51, page 6, paragraph 71 – 73);

a second server attached to the network, wherein a second object is resident on the second server (page 2, paragraph 22, page 4, paragraphs 50 – 51, page 6, paragraph 71 – 73), and

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wherein the first and the second objects perform a function (page 2, paragraphs 21 – 22, page 4, paragraph 50); and

a distributor program for receiving requests for the function and for selecting between the first and the second object to perform the function for the client program (page 1, paragraph 14, and page 2, paragraphs 20 and 24, page 5, paragraph 56), wherein the requests are passed from the client program (page 2, paragraph 24).

5. Regarding **claim 11**, Wanta discloses the distributor function balances access between the first and the second objects (page 2, paragraphs 19 – 20, page 6, paragraphs 85 – 86).

6. Regarding **claim 12**, Wanta discloses the distributor function balances loading across the first and the second servers (page 2, paragraphs 19 – 20).

7. Regarding **claim 15**, Wanta discloses the first and the second objects are CORBA compliant (page 2, paragraph 26, page 4, paragraph 54).

8. Regarding **claim 16**, Wanta discloses the feature of both fine and coarse balancing of object distribution (page 1, paragraphs 19 – 20 and 24, and page 7, paragraph 90).

9. Regarding **claim 17**, Wanta discloses a method for balancing object and/or server loads across a communication network, wherein the method comprises:

receiving a request for a function from a requesting program (page 2, paragraph 24);

selecting an object to provide the function, wherein the selection involves distributing requests for the function across a plurality of objects providing the function (page 1, paragraph 14, and page 2, paragraphs 20 and 24, page 5, paragraph 56, page 4, paragraphs 50 – 51, page 6, paragraph 71 – 73); and

providing a reference to the selected object to the requesting program, wherein the requesting program can access the selected object to perform the function using the reference (page 2, paragraph 24, page 4, paragraph 56 – page 5, paragraph 57).

10. Regarding **claim 18**, Wanta discloses the requesting program is resident on a first computer and the selected object is resident on a second computer, and wherein the function is performed on the second computer and the results of the function are communicated to the requesting program (page 2, paragraph 19 – 20, and 24).

11. Regarding **claim 19**, Wanta discloses the selecting of the object to provide the function is performed by a distributor program based on a selection algorithm (page 2, paragraphs 19 – 20, page 6, paragraphs 85 – 86).

12. Regarding **claim 20**, Wanta discloses the distributor program is resident on a computer where the requesting program resides (page 2, paragraphs 22 and 24, page 4, paragraph 56).

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13. Regarding **claim 21**, Wanta discloses the distributor program selects an object to perform the function from a group of objects which perform the function (page 2, paragraph 19 – 20 and 24).

14. Regarding **claim 22**, Wanta discloses the distributor identifies objects which perform the function and associated the objects in the group of objects (page 2, paragraphs 20, 21, 22, and 24, page 4, paragraph 50)

15. Regarding **claim 23**, Wanta discloses the distributor queries a CORBA compliant naming service to identify the objects that perform the function (page 2, paragraph 26, page 4, paragraph 54).

16. Regarding **claim 24**, Wanta discloses the distributor checks each of the objects in the group of objects to determine if the objects are available (page 2, paragraphs 19, 20, and 24).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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18. Claims 1, 2, 6, 8, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanta et al. (US Pat. Application Publication 2002/0152145, hereinafter Wanta), as applied to claim 10 above.

19. Regarding **claim 1**, Wanta discloses an object distribution system for distributing access to objects, wherein the objects reside on one or more computers attached to a network (abstract, fig. 6), the system comprising:

a first computer in communication with the network (fig. 6, page 2, paragraph 22);

wherein the first

computer comprises:

a client program (page 2, paragraph 22);

a distributor program (page 2, paragraph 24, page 4, paragraph 56);

a first object proxy, wherein the first object proxy is associated with a first object resident on a computer in communication with the network (page 2, paragraph 22, page 4, paragraphs 50 – 51, page 6, paragraphs 71 - 73); and

a second object proxy, wherein the second object proxy is associated with a second object resident on a computer (page 2, paragraph 22, page 4, paragraphs 50 – 51, page 6, paragraphs 71 - 73);

wherein the first object and the second object perform a function (page 2, paragraphs 21, 22, and 24, page 4, paragraph 50); and

wherein the distributor program selects between the first and the second object to perform the function for the client program (page 1, paragraph 14, and page 2, paragraphs 20 and 24, page 5, paragraph 56).

Wanta however did not clearly disclose the first and second objects are on the same computer. Instead, Wanta discloses that object request broker (ORB) searches for an available object to service the request and in the event an instance of the required object can not be found, the ORB invokes a new instance of the object (page 2, paragraph 24). It is obvious that a computer (server) can have more than one object. Wanta also discloses that any given domain comprises a collection of objects, said to be members of the domain that are associated with some common characteristics (page 4, paragraph 50). It would have been obvious to recognize that each of the network computer (server) in Wanta's system is capable of having multiple objects that can perform the similar functions, which ORB selects one of the object that available to perform the quest.

20. Regarding **claim 2**, Wanta discloses the distributor program selects between the first and the second objects based on a round robin algorithm (page 2, paragraph 20, page 6, paragraphs 85 - 86).

21. Regarding **claim 6**, Wanta discloses the distributor program identifies the first and the second objects as providing the function (page 2, paragraphs 21, 22, and 24, page 4, paragraph 50). Wanta did not clearly disclose the step of associating the first and the second objects in an object group. Instead, Wanta discloses that object request broker (ORB) searches for an available object to service the request and in the event an instance of the required object can not be found, the ORB invokes a new instance of the object (page 2, paragraph 24). It is obvious that a computer (server) can have more than one object. Wanta also discloses that any given domain comprises a collection of objects, said to be members of the domain that are associated

with some common characteristics (page 4, paragraph 50). It would have been obvious to recognize that each of the network computer (server) in Wanta's system is capable of having multiple objects that can perform the similar functions, which ORB selects one of the object that available to perform the quest.

22. Regarding **claim 8**, Wanta discloses the first and the second objects are CORBA compliant (page 2, paragraph 26, page 4, paragraph 54).

23. Regarding **claim 9**, Wanta discloses the feature of both fine and coarse balancing of object distribution (page 1, paragraphs 19 – 20 and 24, and page 7, paragraph 90).

24. **Claim 13** is rejected on the same ground as stated in claim 6 above.

25. Claims 3 - 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanta et al. (US Pat. Application Publication 2002/0152145) in view of Applicant's admitted prior art (hereinafter AAPA).

26. Regarding **claim 3**, Wanta did not clearly disclose the objects proxies are maintained in a cache associated with the distributor program. Nevertheless, AAPA discloses that the ORB provides a proxy object in the client's address space, which creates an illusion that the remote object is local the client (specification page 1, lines 25 – 26). It would have been obvious for the proxy object to be maintained in cache for effectively accessing the frequently used data. It would also have been obvious for one of an ordinary skill in the art, at the time the invention was

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made, to incorporate AAPA together with Wanta to save the object proxies in a cache for effectively accessing the frequently used data in an efficient manner.

27. Regarding **claim 4**, Wanta discloses the distributor program checks to determine if the first object is available (page 2, paragraphs 20 and 24).

28. Regarding **claim 5**, Wanta discloses the distributor program selects the first object to perform the function for the client program only when the first object is available (page 2, paragraphs 20 and 24).

29. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanta et al. (US Pat. Application Publication 2002/0152145) in view of Chow et al. (US 6,751,646, hereinafter Chow).

30. Regarding **claim 7**, Wanta did not clearly disclose the distributor program identifies the first and the second objects using a naming service. Nevertheless, the uses of name services for distributed object system is considered well know and well defined under the CORBA as being disclosed by Chow (col. 1, lines 15 – 37, col. 9, lines 14 – 45). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate the feature in Chow with the Wanta so that name service can be used by the client to determine where on the network a particular CORBA compliant object resides.

31. **Claim 14** is rejected on the same ground as stated in claim 7 above.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo
Examiner
Art Unit 2127

lv
November 24, 2004


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SUPERVISORY PATENT EXAMINER
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